

Akira NOGUCHI* : Two new species of *Fissidens* (Musci).

野口 彰* : ホウワウゴケ属の二新種

Fissidens saxatilis Tuzibe et Noguchi, sp. nov. (Fig. 1)

Rhizo-autoicus. Planta minutissima, viridis, fertilis ad 5 mm (cum sporoph.) alta. Folia 2~3-juga, erecto-patentia, sicca parum mutata, inferiora minutissima superiora multo majora, anguste lanceolata inferne latissima, saepe arcuata, apice arcuata, apice anguste acuta, ad 0.7×0.15 mm, lamina vera paulum ultra medium folii producta oblique truncata, limbata, lamina dorsali inferne sensim angustissima supra basin costae enata, costa valida excurrente, lutescente, marginibus ubique integris, distincte limbata, limbo lutescenti superne et dorso e cellulis anguste linearibus 2-seriatis, ventro inferne ca 4-seriatis composito, cellulis laminaribus hyalinis laevibus, medianis irregulariter hexagonis, parietibus tenuibus, $8 \sim 10 \mu$ in diam., veris majoribus $12 \sim 15 \mu$, basilaribus rectangularibus $20 \sim 35 \times 6.5 \sim 8.5 \mu$. Bractee perichaetii haud diversae. Vaginula cylindrica ca 0.04 mm longa. Seta terminalis basi saepe geniculata, lutescenti-rufescens, fere recta, 2~3 mm longa 0.06~0.08 mm crassa. Theca erecta vel inclinata oblonga vel obovata saepe eurystoma, $0.4 \times 0.3 \sim 0.55 \times 0.35$ mm. Peristomii dentes lineari-lanceolati ad $2/3$ dentibus fissi, ca 0.25 mm longi, superne filiformes, densiuscule spiraliter striati, medio alte laxaeque papilloso, inferne densissime et minutissime papilloso-striolati. Planta mascula minutissima ca 0.35 mm alta, ad basin caulinis oriunda, folia 1~2-juga, lamina dorsali nulla, vera supra magna ad medium folii producta superne rotundata, cellulis laxis. Planta sterilis magna, ca 2 mm alta cum foliis ca 0.8 mm lata, folia ca 8~15-juga conferta, fere linearia, erecta, ca 0.55×0.1 mm.

Hab. Kiushiu : Nisize, prov. Higo (leg. K. Maebara, in Herb. A. Noguchi, no. 15253 b-typus, Dec. 1936). Honshiu ; Tomisan, prov. Awa (M. Tuzibe, July 1937).

The late M. Tuzibe proposed a new species, *Fissidens saxatilis*, in his manuscript titled as "Notes on the moss flora of the south Bôso". I have not yet examined his specimen and furthermore I am not sure whether the type specimen has been preserved or not. Having compared my specimen mentioned above with Tuzibe's description, I have come to the conclusion that his description agrees with

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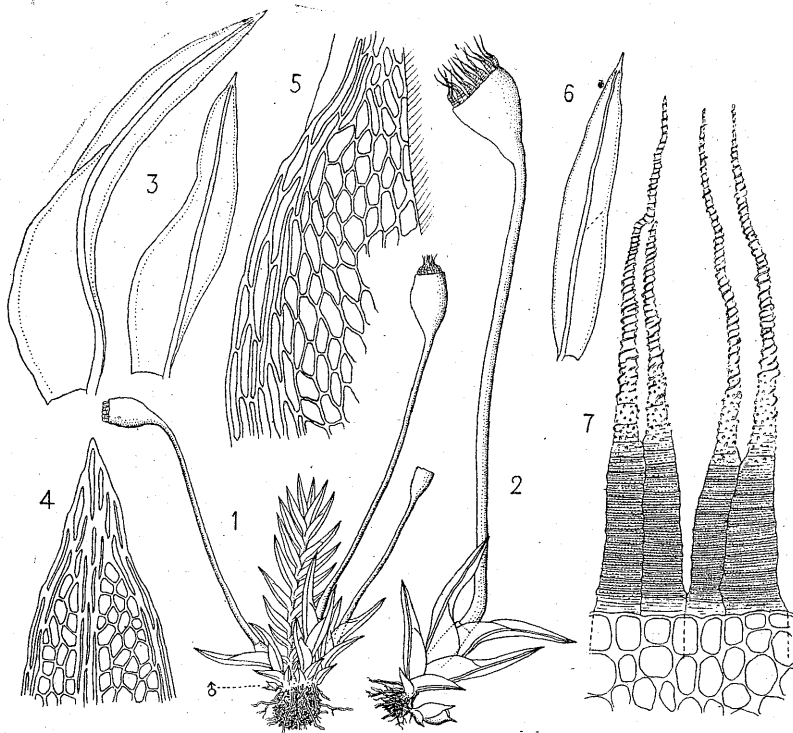


Fig. 1 *Fissidens saxatilis* Tuzibe et Noguchi

1, Plants with a sterile and a male shoots. $\times 13$, 2, Fertile plant with a male shoot, $\times 28$. 3, Leaves, $\times 78$. 4, Leaf-apex, $\times 294$. 5, Upper part of ventral lamina, $\times 294$, 6, Leaf of sterile shoot, $\times 78$. 7, Peristome, $\times 294$.

my specimen in the essential characters. Thus I am now describing the present species above as a new one, calling it *F. saxatilis*.

The present species is closely allied to *F. heterolimbatus* Sakurai but is distinguished from the latter by the smaller sterile shoots bearing smaller and narrower leaves, and by the smaller fertile plants.

The plants are gregarious, and matted together with both the male and sterile shoots on moist shaded soil or rocks. In the province of Higo it was found in the cushion of *Fissidens lateralioides*.

***Fissidens capitulatus* Noguchi, sp. nov. (Fig. 2).**

Autoicus. Planta minutissima, viridis. Caulis simplex ad 2.5 mm altus, cum

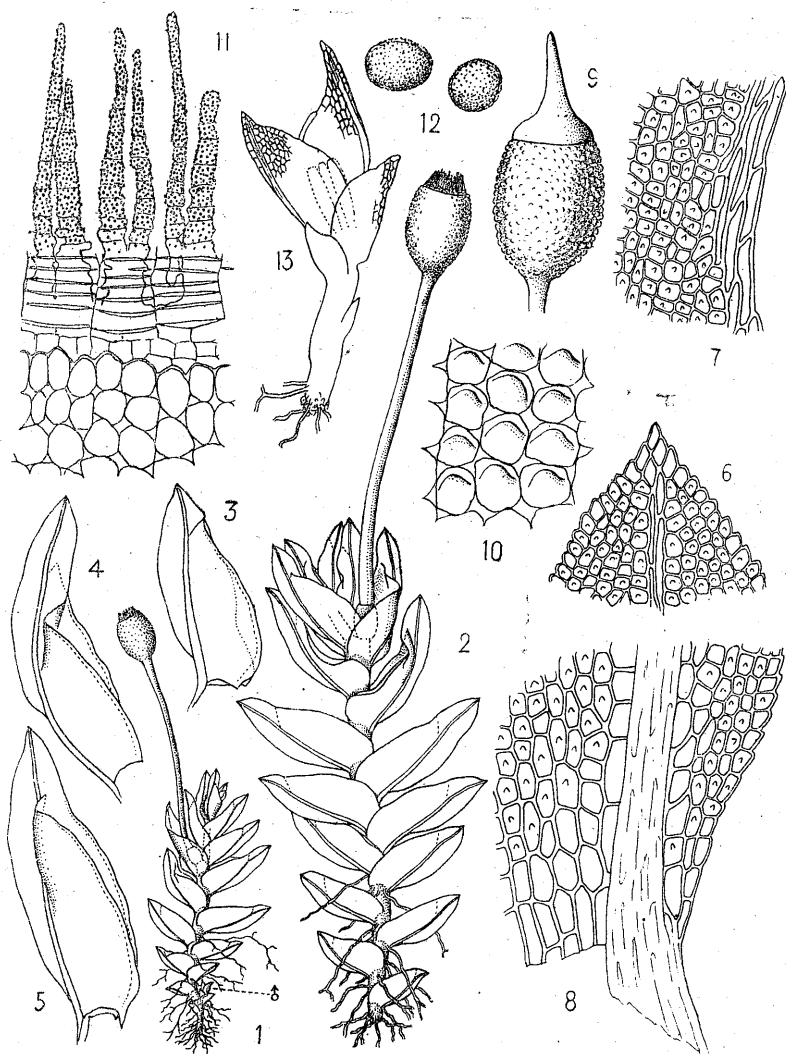


Fig. 2. *Fissidens capitulatus* Noguchi

1, Plant with a male shoot, $\times 13$. 2, Plant, $\times 23$. 3, 4, 5, Leaves, $\times 43$. 6, Leaf-apex, $\times 294$. 7, Median part of ventral lamina, $\times 294$. 8, Leaf-base, $\times 294$. 9, Capsule with lid, $\times 50$. 10, Exothecal cells, $\times 294$. 11, Peristome, $\times 294$. 12, Spores, $\times 294$. 13, Male shoot, $\times 73$.

foliis ad 1.3 mm latus, densiuscule foliosus, inferne fusco-radiculosus. Folia erecto-patentia, ca 7~9-juga, sicca parum mutata, oblonga vel ovato-oblonga, apice acuta, inferiora minuta superiora sensim majora ad 1×0.35 mm, lamina vera concava, ultra $2/3$ folii producta, margine undulata, distincte limbata, limbo pellucido, superne e cellulis linearibus 1-seriatis inferne 4~5-seriatis composito, lamina dorsali ubique elimbata inferne angusta, ad vel longe supra basin costae enata, ibidemque angustissima, costa valida, superne sensim agusta \pm arcuata cum apice evanida basi decurrente, marginibus convexo-serratis, cellulis \pm obscuris, quadrato-hexagonis, parietibus tenuibus, alte uni-papillatis, medianis $8 \sim 11 \mu$ in diam., basilaribus laminis veris breviter rectangularibus laevibus, parietibus crassioribus $12 \sim 20 \times 9 \sim 12 \mu$. Bracteae perichaetii haud diversae sed arcuatae. Seta sublateralis, erecta raro basi \pm geniculata, recta vel \pm flexuosa, laevis, lutescens, $1.8 \sim 2.2$ mm longa, $0.06 \sim 0.08$ mm crassa. Vaginula subglobosa $0.12 \sim 0.16$ mm alta. Theca erecta vel suberecta, fusca ore rufescentia subglobosa vel pyriformia, leptoderma, $0.32 \times 0.26 \sim 0.4 \times 0.32 \sim 0.45 \times 0.35$ mm, cellulis exothecii hexagonis distincte collenchymaticis alte convexis, $20 \sim 25 \mu$ in diam. Peristomii dentes erecti, lineares apice obtusi ad 0.13 mm longi, fere ad basin divisi, fusci superne lutescenti-fusci, dense papilloosi inferne laeves. Sporae ovatae vel subglobosae, indistincte minutissimeque papillo-sae, $20 \sim 25 \sim 32 \mu$ in diam. Operculum longe rectratum ca 0.3 mm altum. Calyptra ignota. Perigonia minutissima ad basin caulinis oriunda, folia paucijuga, inferiora minute superiora multo majora ad 0.3 mm longa.

Hab. Formosa : Kagi-city, prov. Tainan (leg. A. Noguchi, no. 6795-typus, Aug. 1932).

This species is a very interesting one, differing from other species of *Fissidens* by its exothecal cells highly projecting on the surface, and by its shorter and largely papillose peristome teeth on the nearly whole surface. This species seems to be allied to the species of *Moenkemeyera* in several respects, especially in its leptodermous capsules, its peristome structure and larger spores. The peristome teeth, however, are deeply cleft as those of *Fissidens*. I am rather of the opinion the genus *Moenkemeyera* is not a group distinct from the genus *Fissidens*.

The plant was found on the moist muddy soil.